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ABSTRACT

Because the field of home economics has long been dominated by females, concern has often been expressed that many of the audiovisual materials available for use in home economics classes are also female dominated; in an age when both males and females have equal access to home economics classes, this is a major concern. In addition, with the advent of computers, new software is constantly being developed, and home economics teachers have been using it. As a result, a project evaluated the software available for home economics in terms of sex bias. During the project, four Pinellas County, Florida, home economics teachers did extensive research to determine how usable software really is without inadvertently setting an example to students of sex bias or stereotyping. The teachers developed an appropriate evaluation tool and spent three days previewing the materials and completing the evaluation forms. Following this, the lead teacher conducted inservice education for 14 additional teachers that included discussion of sex bias and stereotyping, as well as giving teachers an opportunity to preview selected materials. A summary of the findings of the committee was given to each participant. In general, it was found that personalized programs (those that address the student by name) were very inviting to all students and more motivating as compared to third-person references; in addition, there was little if any chance for sex stereotyping. Overall, home economics computer software was found to be bias-free. Recommendations were made to improve research procedures for future software evaluations. (Workshop materials and the review form are included in the report.) (KC)

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ED285995

FINAL REPORT

Project No. DVE 520-15170-7-1EOC

From July 1, 1986 to June 30, 1987

REVIEW OF HOME ECONOMICS COMPUTER SOFTWARE FOR SEX BIAS AND STEREOTYPING

Division of Vocational, Technical, and Adult Education
Department of Home Economics
Pinellas County Schools
205 - 4 Street SW
Largo, FLorida 34640

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Project Directors

The project reported herein was conducted pursuant to a grant from the Division of Vocational Adult and Community Education, Florida Department of Education. Contractors undertaking such projects are encouraged to express freely their professional judgements in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent the official position of policy of the Florida Department of Education.

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CONTENTS

	Page
Title Page	i
Contents	ii
Preface	iii
Abstract	1
Introduction	2
Methods	4
Results and Findings	5
Conclusions and Recommendations	6
Appendix	7

PREFACE

Special thanks are expressed to Peggy Morrison-Thurston, home economics teacher at Pinellas Park High School, for the leadership role that she took in the development of this document. As the lead teacher, she coordinated the efforts to review software, conducted workshops, and served as liaison. Her tireless efforts are most appreciated.

Three other Pinellas County teachers, Sally Dunn (Southside Fundamental Middle School), Pat Keegan (Dixie Hollins High School), and Peg Lebvre (Tarpon Springs High School), also deserve special thanks and recognition. All three spent many hours reviewing software, writing evaluations, helping in the planning process, and assisting with other endeavors. In addition, Peg LeFebvre spent many hours at the computer to enter the information, correct errors, and prepare it for printing.

Special thanks also are expressed to Betsy Smith, Pam Wedlake, Mary Haggard, and Wanda Kirby for their efforts in typing and preparing the document for publication. All gave beyond the call of duty.

Artwork throughout was prepared by Roy and Wanda Kirby, and by Linda Haley. Special thanks is expressed to each of them.

ABSTRACT

Because the field of home economics has long been dominated by females, concern has often been expressed that many of the audio visuals available for use in home economics classes are also female dominated; in an age when both males and females have equal access to home economics classes, this is of major concern. In addition, with the advent of the computer, new audio visuals in the form of software are constantly being developed, and home economics teachers have been quick to experiment with this new tool. As a result, this project emerged, and four Pinellas County Home Economics teachers did extensive research to determine how usable software really is without inadvertently setting an example to students of sex bias or stereotyping.

The lead teacher used one day to research software available and to order appropriate software for the committee to review. She then met with the three teachers and worked with them to develop an appropriate evaluation tool; they met together for three days to preview the materials and complete the evaluation forms. Following this, the lead teacher inserviced 14 additional teachers, including a section on sex bias and stereotyping, as well as give teachers an opportunity to preview selected materials. A handout was given to each participant; this included a summary of the findings of the total committee.

In general, it was found that personalized programs (those which address the student by name) were very inviting to all students and more motivating as compared to third person references. In addition, there was little if any chance for sex stereotyping.

INTRODUCTION

This project was a selective review of educational software. It was not a recommendation list. It is at the teacher's discretion in which grade, in which Home Economics courses, and in how much depth to use the software. The team of reviewers used an evaluation form (see appendix) for highlighting the agreed upon concerns of:

1. sex equity - inviting to all students
2. content - accurate
3. presentation - logical; graphics and sound
4. interaction - user friendly
5. use - record keeping, etc.

A rating scale of 1 - 4 was used, with 4 being the highest score attainable. Special attention was paid to the hardware needs (system requirements) such as number of disk drives and printer (essential or optional). Publisher back-up policy was addressed with cost included if a fee is charged. Student entry competency is noted so that the teacher can determine the readiness of students to interact with the program.

A place for comments regarding the strengths or weaknesses of the program allowed for equity statements by the reviewer, while overall comments addressed application.

The following coding system is used to designate major subject matter areas:

Human Relations/Family Living
Child Development
Personal and Family Finance (Consumer)
Foods and Nutrition
Clothing and Textiles
Housing and Home Furnishings

Subject matter areas were coded in the upper right hand corner. Because Home Economics is an applied discipline, some software would be effective in more than one subject matter area. To help pinpoint those most applicable to current teaching situations, those activities are coded in the right margin of the listing, using the following symbols:

Human Relations/Family Living

Child Development

Personal and Family Finance (Consumer)

Foods and Nutrition

Clothing and Textiles

Housing and Home Furnishings

METHODS

The lead teacher used one day to research software that was available; she then elected to order from only four companies due to the large numbers of resources available. She met with the other three teachers for a total of three days; they first developed an evaluation form, then agreed on the format that would be used while utilizing the word processor to store all the information and make it easier for final compilation. At the end of the three days, all software that had not been previewed was equally shared by the four teachers and they donated many more hours to completing the task. One teacher then agreed to compile all the data, edit it, and prepare a draft copy for use at the six-hour workshop to be conducted with 14 high school home economics teachers (one per high school had been designated).

The six-hour workshop was then conducted in two separate sessions of three hours each. During registration, teachers were encouraged to review the resources displayed around the room, and were given a pretest on sex equity to complete. The lead teacher then gave an overview of sex equity (summary found in project). A speaker on "Managing the Computer in the Classroom" gave a 30-minute presentation, then teachers were given the remainder of the time to review software, either individually or as teams. The posttest concluded the six-hour workshop.

Assignments were given to the fourteen participants so that they could receive 12 component points. A copy of the Assignment Sheet is included in the appendix. The posttest was completed and the workshop concluded.

The appendix includes a copy of the pre/posttest, as well as the agenda for the workshop.

Following the completion of the workshop, a report was compiled by the lead teacher and the supervisors of home economics titled "Review of Software for Home Economics." This was duplicated and distributed to the 90 secondary home economics teachers in Pinellas County. In addition, one copy per district was given to the regional home economics consultants for distribution to the other 66 districts in Florida. Each district may then duplicate enough copies to give to the teachers in their county.

RESULTS AND FINDINGS

A total of 86 pieces of software were reviewed by the team; they can be grouped as follows:

	Total Reviewed	High Ranking In Sex Equity	Low Ranking In Sex Equity
Housing and Home Furnishings	5	5	0
Clothing and Textiles	8	8	0
Foods and Nutrition	26	25	1
Consumer Education/Family Finance	21	18	3
Child Development	8	8	0
Family Living	18	18	0
	86	82	4

It is easy to note that, in spite of common beliefs that home economics is a "woman's field," software overall does not show bias. Ninety-five percent of the software previewed did not have evidence of being a problem in this area.

A total of 18 teachers participated in the workshop, and had the opportunity to learn about sex equity as well as to become aware of methods of preventing sex bias from occuring. These 18 teachers represented 14 high schools, and will share the materials with 27 other teachers. If each of the 45 teachers involved work with approximately 125 students, then about 5625 students will be affected per semester. In addition, the document has been distributed to the regional home economics consultants, and can be made available to all other home economics teachers in the state of Florida.

The total dollars spent in the project were as follows:

Substitutes for lead teacher and 3 teachers	$ 546.00
Stipends for inservicing teachers	720.00
Printing of documents	182.28
	$1,448.28

Because the publishing companies picked up the cost of mailing the software, that portion of the funds was not utilized.

CONCLUSIONS AND RECOMMENDATIONS

The following recommendations are made:

1. That additional software from other companies be evaluated; because only four companies were represented, true conclusions cannot be drawn.

2. That the lead teacher in future projects be given more time for coordination of activities. At least three days prior to the other teachers meeting and at least two days at the conclusion of the project are needed.

3. That the teachers doing the evaluations be given two weeks to work on the project; three days was inadequate, even for a limited number of pieces of software, and each had to give many hours of her own time.

4. That a typist be provided to assist the teachers with input and to assist with the final document.

5. That copies be provided for all home economics teachers throughout the state of Florida.

While it can be concluded that this project was successful in that it accomplished all the original objectives, it should be noted that it did so only because of the four teachers going beyond the call of duty to complete their tasks.

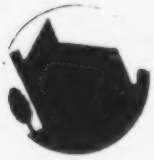
APPENDIX

SEX EQUITY WORKSHOP

PINELLAS PARK HIGH SCHOOL

COMPUTER SOFTWARE
REVIEW

May 5, 1987



GRANT COMMITTEE

Lead Teacher

Peggy Morrison-Thurston
Pinellas Park High
and

Sally Dunn
Southside Fundamental

Pat Keegan
Dixie Hollins

Peg LeFevre
Tarpon Springs

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Orange Juice, Inc.
Sunburst

Distributor: Mr. Carey Braker
Southern Media
Ocala, Florida

FIRST SESSION
May 5, 1987

6:00	Registration and Displays	Refreshments
6:30	Introduction	Peggy Morrison-Thurston
	Sex Equity Update	
7:30	Speaker ... "Managing the Computer in the Classroom"	Judy Ambler Belcher Elementary
8:30	Break	
8:40	Computer Software Review	Room D-5
9:30	Adjourn	

SECOND SESSION
May 12, 1987

6:00	Registration	
6:15	Individual Computer Review	Room D-5
8:00	Break	
8:15	Individual Computer Review	Room D-5
9:15	Posttest/Evaluation	
9:30	Adjourn	

SEX EQUITY SOFTWARE REVIEW

May 5 and 12, 1987

PRETEST/POSTTEST

1. Define "Sex Equity." _____

   _____

   _____

2. What is the meaning of NTO?

   _____

3. When was the "Sex Equity Act" passed by the state of Florida?

   _____

4. What act created vocational funding for equity programs in Florida?

   _____

   For how long? _____

5. Give two reasons Vocational Education was singled out to serve NTO programs? _____

   _____

   _____

6. What is the national secondary dropout rate?

   _____

7. List three tasks of a secondary program aimed at increasing women's career ambitions.

   a. _____

   b. _____

   c. _____

8. Explain how a good computer program can reduce bias in a classroom setting. _____

   _____

   _____

9. Name three factors to evaluate when reviewing software for sex equity.

   a. _____

   b. _____

   c. _____

10. What does it mean when a program is personalized?

    _____

SEX EQUITY WORKSHOP
PINELLAS COUNTY HOME ECONOMICS TEACHERS
PRACTICAL HOMEMAKING SKILLS

SOFTWARE REVIEW

COURSE: _____

NAME OF PROGRAM: _____ DATE: _____

PRODUCER: _____ ORDER #: _____ COST: _____

SUBJECT AREA: _____ TOPIC: _____

AGE/GRADE RANGE: _____

SYSTEM REQUIREMENTS: _____

BACK-UP DISK POLICY: _____

TYPE OF PROGRAM: (Check)

_____ Drill and Practice
_____ Tutorial
_____ Information Retrieval
_____ Game
_____ Simulation
_____ Problem Solving
_____ Classroom Management
_____ Remediation
_____ Enrichment

GROUPING: (Check)

_____ Individual
_____ Pairs
_____ Small Group (up to 4 students)
_____ Classroom Network

STUDENT ENTRY COMPETENCIES: (Quote producer)

_____

BRIEFLY LIST THE PROGRAM'S OBJECTIVES. ARE THEY CLEARLY STATED IN THE PROGRAM OR IN THE DOCUMENTATION? ARE THEY SOUND? ARE THEY ACHIEVED?

_____

_____

IS THE DOCUMENTATION AND THE PROGRAM FREE OF ANY BIAS: SEXUAL, RACIAL OR POLITICAL? LIST STRENGTHS AND WEAKNESSES IN THIS AREA.

_____

_____

LIST ANY OVERALL STRENGTHS OR WEAKNESSES.

_____

_____

CHECK ONE.

_____ Excellent Program
_____ Pretty good program
_____ Would consider purchase
_____ Fair. But would wait for something better
_____ Not useful. Do Not recommend

EVALUATION CHECKLIST.....

YES	NO	N/A		COMMENTS
			EQUITY/EDUCATIONAL CONTENT	
			Is the program free of:	
___	___	___	a. sex-biased language	_____
___	___	___	b. stereotyped roles within the home	_____
___	___	___	c. stereotyped roles in education setting	_____
___	___	___	d. stereotyped roles in a work setting	_____
___	___	___	Are illustrations consistent with sex-bias free language and stereotyping?	_____
___	___	___	Are materials encouraging use equally by both sexes?	_____
___	___	___	Are materials free of sexual, racial and political bias?	_____
___	___	___	Is content accurate?	_____
___	___	___	Is content appropriate for intended users?	_____
			PRESENTATION	
___	___	___	Is content logically presented and organized?	_____
___	___	___	Are instructions to user clear?	_____
___	___	___	Do graphics, sound and color enhance the instruction?	_____
___	___	___	Is the frame display clear and easy to read?	_____
			INTERACTION/INPUT	
___	___	___	Is feedback effective and appropriate?	_____
___	___	___	Do cues help students answer questions correctly?	_____
___	___	___	Is access to "menu" easy for user (to change activities)?	_____
___	___	___	Can user control the pace?	_____
___	___	___	Are there safeguards against "locking" the program by erroneous input?	_____
___	___	___	Is a printer essential to results?	_____
___	___	___	Is the program personalized?	_____
			TEACHER USE	
___	___	___	Does teacher have to monitor student use?	_____
___	___	___	Is record keeping possible? a. within program	
___	___	___	b. on supplemental sheets	_____
___	___	___	Are documentation and curriculum suggestions included?	_____
___	___	___	Are support materials <u>essential</u> to the user or teacher?	_____
___	___	___	Does supplemental material help relate program to other curriculum activities?	_____

Adapted from: "Evaluation of Educational Software: A Guide to Guides.", The Northeast Regional Exchange Inc. January, 1983.

BEST COPY AVAILABLE

CONCLUSIONS

It was the consensus of the four team members that personalized programs (those which address the student by name) were very inviting to all students and more motivating as compared to third-person references.

Inviting all students to use software assumes the programs are free of overt bias as well as the subtle. Presentation by language, graphics and roles at home, school or work can inhibit students subconsciously. The committee found only a few programs that were overtly biased (such as: all graphics male or all examples female sending mixed messages to the student viewer). The questionable programs have low ratings for Equity.

Graphics and sound did not always enhance a program. In fact, they could be distracting and often slowed the pace of a program. Also, graphics would be perceived as biased or too stereotyped.

Programs with accompanying support materials such as review sheets, follow-up activities and tests were rated higher than those without.

Programs that had all commands and information on the monitor frame were rated higher than those requiring a supplemental page or booklet for reference.

Programs providing students with hard copy (printout) of progress or activity were rated high for student motivation.

With most Home Economics labs limited to fewer computers than students, management becomes a greater issue than in self-contained laboratory settings. Teachers need to look at management of the computer, computer resources and student use.